

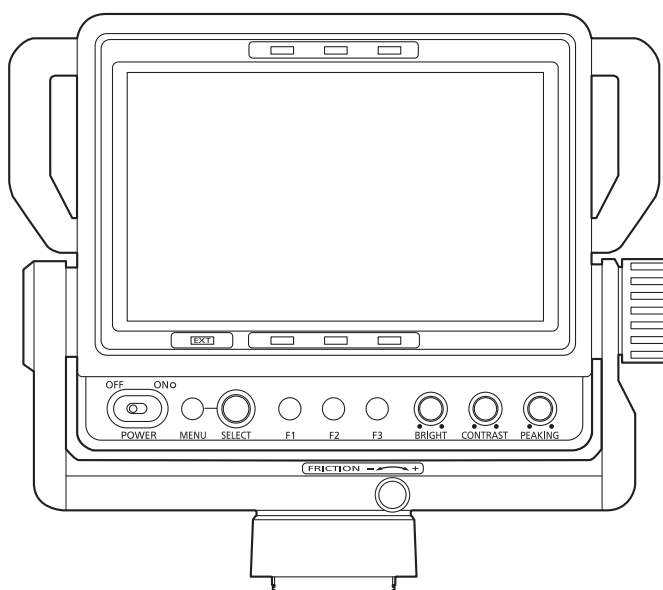
Panasonic[®]

Operating Instructions

LCD View Finder

Model No. **AK-HVF70G**

- Die Bedienungsanleitung in Deutsch ist als PDF-Datei in der CD-ROM enthalten.
- Le mode d'emploi en français est fourni sous forme de fichier PDF sur le CD-ROM.
- Le istruzioni per l'uso in italiano sono contenute in un file PDF sul CD-ROM.
- Las instrucciones de funcionamiento en español se encuentran en un archivo PDF del CD-ROM.
- 日本語の取扱説明書は、PDFファイル形式でCD-ROMに納められています。



Before operating this product, please read the instructions carefully and save this manual for future use.

ENGLISH

- **How to open the operating instruction manual PDF files**
Discontinue installation if the installation screen of the software opens as a result of inserting the CD-ROM. When [INDEX.pdf] on the CD-ROM is opened, a list of the operating instruction manuals will be displayed. Click on the document name of the manual to be opened.
- **Adobe® Reader® is required to read PDF files.**
It can be downloaded from the home page of Adobe Systems.

DEUTSCH

- **Öffnen der PDF-Dateien der Bedienungsanleitung**
Brechen Sie die Installation ab, falls beim Einlegen der CD-ROM der Installationsbildschirm der Software erscheint. Wenn [INDEX.pdf] auf der CD-ROM geöffnet wird, erscheint eine Liste der Bedienungsanleitungen. Klicken Sie auf den Dokumentennamen der zu öffnenden Anleitung.
- **Zum Lesen der PDF-Dateien benötigen Sie Adobe® Reader®.**
Dieses Programm kann von der Homepage von Adobe Systems heruntergeladen werden.

FRANÇAIS

- **Comment ouvrir les fichiers PDF des manuels du mode d'emploi**
Arrêter l'installation si l'écran d'installation du logiciel s'ouvre quand le CD-ROM est inséré. Quand [INDEX.pdf] sur le CD-ROM s'ouvre, la liste des manuels du mode d'emploi s'affiche. Cliquer sur le nom du document correspondant au manuel à consulter.
- **Adobe® Reader® est nécessaire pour lire les fichiers PDF.**
Ce logiciel peut être téléchargé depuis la page d'accueil d'Adobe Systems.

ITALIANO

- **Come aprire i file dei manuali di istruzioni per l'uso**
Se inserendo il CD-ROM si apre la schermata di installazione del software, interrompere l'installazione. Aprendo [INDEX.pdf] sul CD-ROM, viene visualizzato un elenco di manuali di istruzioni per l'uso. Fare clic sul nome del documento corrispondente al manuale da aprire.
- **Per leggere i file PDF è necessario Adobe® Reader®.**
Il programma può essere scaricato dal sito Web di Adobe Systems.

ESPAÑOL

- **Modo de abrir los archivos PDF que contienen el manual de las instrucciones de funcionamiento**
Interrumpa la instalación si la pantalla de instalación del software se abre como resultado de insertar el CD-ROM. Cuando se abra [INDEX.pdf] en el CD-ROM se visualizará una lista de los manuales de instrucciones de funcionamiento. Haga clic en el nombre de documento del manual que va a abrir.
- **Para leer los archivos PDF se necesita el programa Adobe® Reader®.**
Este programa se puede descargar de la página inicial de Adobe Systems.

日本語

- **取扱説明書PDFファイルの開き方**
CD-ROMを挿入してソフトウェアのインストール画面が立ち上がる場合は、インストールを中止してください。
CD-ROM内の[INDEX.pdf]を開くと取扱説明書の一覧が表示されます。
開きたい取扱説明書のドキュメント名をクリックしてください。
- **PDFファイルをご覧いただくには、Adobe® Reader®が必要です。**
アドビシステムズ社のホームページからダウンロードしてください。

Read this first!

For General

WARNING:

- To reduce the risk of fire, do not expose this equipment to rain or moisture.
- To reduce the risk of fire, keep this equipment away from all liquids.
Use and store only in locations which are not exposed to the risk of dripping or splashing liquids, and do not place any liquid containers on top of the equipment.

CAUTION:

Do not remove panel covers by unscrewing them.
No user serviceable parts inside.
Refer servicing to qualified service personnel.

CAUTION:

To reduce the risk of fire or electric shock and annoying interference, use the recommended accessories only.

CAUTION:

In order to maintain adequate ventilation, do not install or place this unit in a bookcase, built-in cabinet or any other confined space.

To prevent risk of electric shock or fire hazard due to overheating, ensure that curtains and any other materials do not obstruct the ventilation.

For USA

FCC NOTICE (USA)

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Note:

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.


Warning:

To assure continued FCC emission limit compliance, the user must use only shielded interface cables when connecting to external units. Also, any unauthorized changes or modifications to this equipment could void the user's authority to operate it.

For Canada

NOTIFICATION (Canada)

This class A digital apparatus complies with Canadian ICES-003.

 indicates safety information.

EEE Yönetmeliğine Uygundur.

EEE Complies with Directive of Turkey.

Importer's name and address of pursuant to EU rules:

Panasonic Testing Centre

Panasonic Marketing Europe GmbH

Winsbergring 15, 22525 Hamburg, Germany

IMPORTANT SAFETY INSTRUCTIONS

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



EMC NOTICE FOR THE PURCHASER/USER OF THE APPARATUS

1. Applicable standards and operating environment (AK-HVF70G)

The apparatus is compliant with:

- standards EN55103-1 and EN55103-2, and
- electromagnetic environments E1, E2, E3, E4 and E5.

2. Pre-requisite conditions to achieving compliance with the above standards

<1> Peripheral equipment to be connected to the apparatus and special connecting cables

- The purchaser/user is urged to use only equipment which has been recommended by us as peripheral equipment to be connected to the apparatus.
- The purchaser/user is urged to use only the connecting cables described below.

<2> For the connecting cables, use shielded cables which suit the intended purpose of the apparatus.

- Video signal connecting cables
Use double shielded coaxial cables, which are designed for 75-ohm type high-frequency applications, for SDI (Serial Digital Interface).
Coaxial cables, which are designed for 75-ohm type high-frequency applications, are recommended for analog video signals.
- Audio signal connecting cables
If your apparatus supports AES/EBU serial digital audio signals, use cables designed for AES/EBU.
Use shielded cables, which provide quality performance for high-frequency transmission applications, for analog audio signals.
- Other connecting cables
Use double shielded cables, which provide quality performance for high-frequency applications, as connecting cables for IEEE1394 or USB.
- When connecting to the HDMI signal terminal, use multilayer shielded cables, which provide quality performance for high-frequency applications.
- When connecting to the DVI signal terminal, use a cable with a ferrite core.
- If your apparatus is supplied with ferrite core(s), they must be attached on cable(s) following instructions in this manual.

3. Performance level

The performance level of the apparatus is equivalent to or better than the performance level required by these standards. However, the apparatus may be adversely affected by interference if it is being used in an EMC environment, such as an area where strong electromagnetic fields are generated (by the presence of signal transmission towers, cellular phones, etc.). In order to minimize the adverse effects of the interference on the apparatus in cases like this, it is recommended that the following steps be taken with the apparatus being affected and with its operating environment:

1. Place the apparatus at a distance from the source of the interference.
2. Change the direction of the apparatus.
3. Change the connection method used for the apparatus.
4. Connect the apparatus to another power outlet where the power is not shared by any other appliances.

Contents

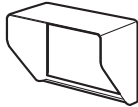
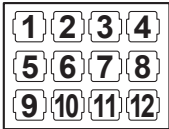
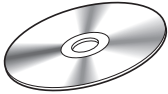
Read this first!	3	On-screen display	9
Overview	5	Operation status display	9
Accessories	5	Picture adjusting knobs status display	9
Operating precautions	6	Function display	9
Maintenance	6	How to use on-screen menus	10
Parts and their functions	7	Menu operations	10
Viewfinder operations	8	Menu configuration	10
Mounting the viewfinder on the camera	8	Table showing camera interface connector pin assignment	13
Detaching the viewfinder	8	Appearance	13
Viewfinder tilting	8	Maintenance inspections	14
Viewfinder panning	8	Specifications	14
Attaching and removing the hood	8		

Overview

This unit is an LCD viewfinder with a 7.0 inch liquid crystal panel.
It is designed for the AK-HC3800 studio handy camera and the AK-HC3500 multi-format camera.
The viewfinder can automatically distinguish between the 1080/59.94i signal and the 1080/50i signal video format in showing the camera image.
Various marker settings, focus assist functions, waveform display functions and other settings need not be made in camera, but can easily be made directly using the viewfinder menus.
These functions can be assigned to the three function buttons to allow direct access at the push of a button.

Accessories

Make sure that the following accessories are supplied.
● After removing the product from its container, dispose of the packing materials in an appropriate manner.

Hood.....1 (page 8) 	Tally number sticker (1 – 12).....1 set 
CD-ROM.....1  ● Operating Instructions	

Operating precautions

In addition to the safety precautions given above in “Read this first!”, also observe the following instructions.

Handle the viewfinder carefully.

Make sure you do not drop or expose the unit to strong impacts or vibrations that could damage the product or cause accidents.

Operate the viewfinder within a temperature range of 0 °C to 45 °C (32 °F to 113 °F).

Operation in locations below 0 °C (32 °F) or above 45 °C (113 °F) may adversely affect the internal components.

Connecting/disconnecting the viewfinder

Be sure to power down the viewfinder before connecting it to or removing it from the camera.

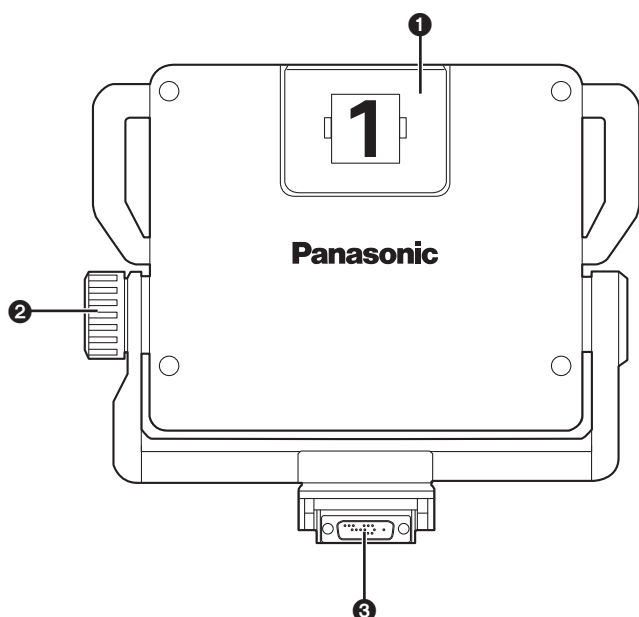
LCD monitor

- The LCD monitor is manufactured with high-precision technology and has an effective pixel count of over 99.99%. However, less than 0.01% of the pixels are either missing or constantly lit (red, blue, green). This is normal and not a sign of damage.
- The LCD protective panel is specially treated. Wiping it with a hard cloth or rubbing it vigorously may scratch or mark its surface.
- If a still image is displayed for an extended period of time, it may generate a temporary afterimage. (This afterimage will disappear if normal video is displayed for a few moments.)
- The response rate and brightness of the LCD depend on the ambient temperature.

Maintenance

- Clean the cabinet and LCD protective panel by gently wiping them with a soft cloth.
To remove stubborn soiling, use a cloth dampened with an aqueous solution of neutral detergent and thoroughly wrung out. Then wipe with a dry cloth.
Any moisture entering the unit could damage it.
- Never use alcohol, paint thinner or petroleum ether to clean this unit.
They could discolor the surface and cause the paint to peel.
- Do not apply spray cleansers directly to the unit. Any moisture entering the unit could damage it.

Parts and their functions



1 Up tally lamp

Lights when the control signal from camera is input.
Use the "UP TALLY LAMP" item in the menu to change tally lamp brightness. (OFF, LOW, HIGH)
The supplied tally number sticker can be attached to the lamp.

2 Tilt lock knob

Use this dial to adjust the torque applied during tilting.
Turning the knob in the direction indicated by the arrow on the knob increases torque exerted during tilting. (page 8)

3 Camera I/F connector

Use this connector to connect the AK-HC3800 studio handy camera or the AK-HC3500 multi-format camera.

4 FRICTION knob

Use this dial to adjust the torque applied during panning.
Turn this knob in the direction marked "+" to increase torque or in the direction marked "-" to decrease it.
(page 8)

5 POWER switch

Use this switch to turn the power supply ON or OFF.

6 POWER lamp

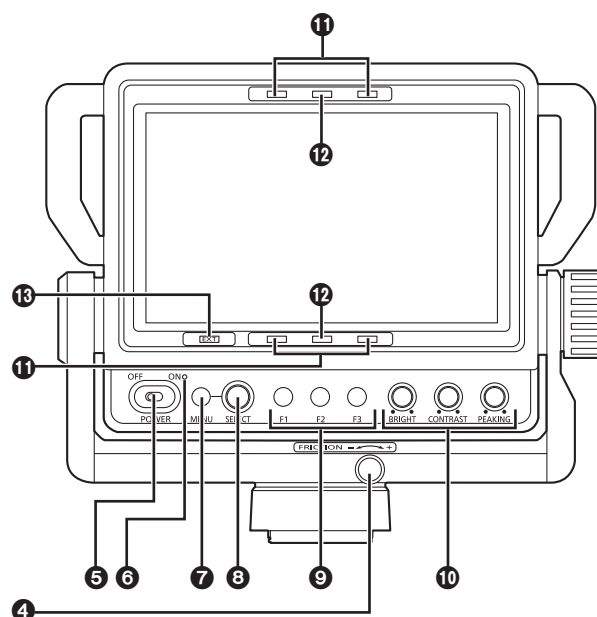
When the power is on, the lamp (green) lights.

7 MENU button

Use this button to turn the menu On or Off.
Pressing it in a menu redisplay the previous menu.

8 SELECT dial

Use this jog dial to operate menus screen.
Turn the SELECT dial clockwise to move the cursor downwards and counterclockwise to move it upwards.
To select a menu item, press the SELECT dial.
In FOCUS-IN-RED mode, it is used to set display level.



9 Function buttons

[F1], [F2], [F3]

Use the "FUNCTION1" to "FUNCTION3" menu items to assign functions to these buttons.
Press one of these buttons to use the assigned function.
For details on operation procedures, see "FUNCTION menu (page 11)".

10 Picture adjusting knobs

[BRIGHT]

Use this knob to adjust the brightness of viewfinder images.

[CONTRAST]

Use it to adjust the contrast of the viewfinder images.

[PEAKING]

Use this knob to adjust the amount of contour correction of viewfinder images.

11 Red tally lamp

This indicator lights when the red tally signal is input.

12 Green tally lamp

This indicator lights when the green tally signal is input.

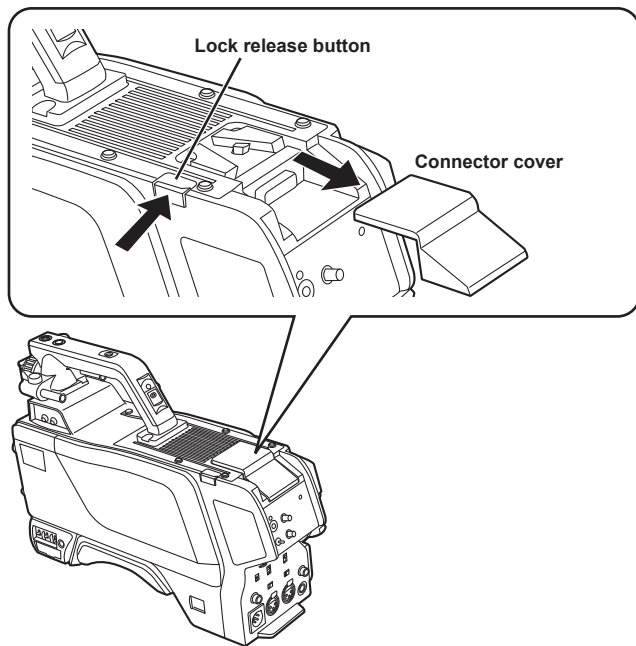
13 EXT lamp

This indicator lights when a lens extender is used.

Viewfinder operations

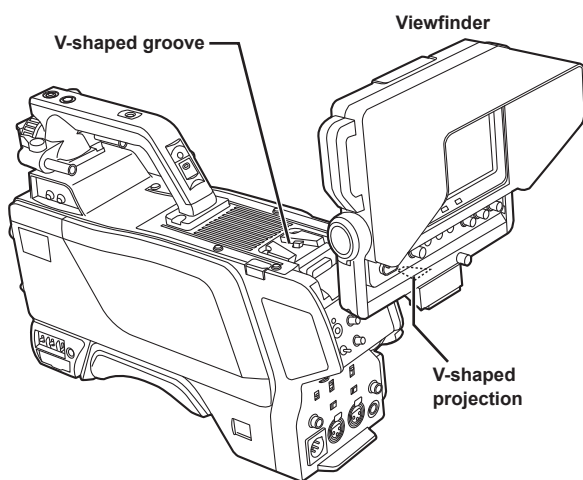
Mounting the viewfinder on the camera

1. Confirm that the **POWER** switches on the camera and the viewfinder are turned off.
2. Press the lock release button on the camera and slide the connector cover to detach it.



3. Fit the **V-shaped projection** on the viewfinder in the **V-shaped groove** in the camera and slide in the viewfinder until it locks in place.

After mounting the viewfinder, make sure it has been firmly mounted on the camera and that the **FRICTION** knob and the **tilt lock knob** are properly locked.



Detaching the viewfinder

Press the **lock release button** on the camera and slide the viewfinder to detach it.

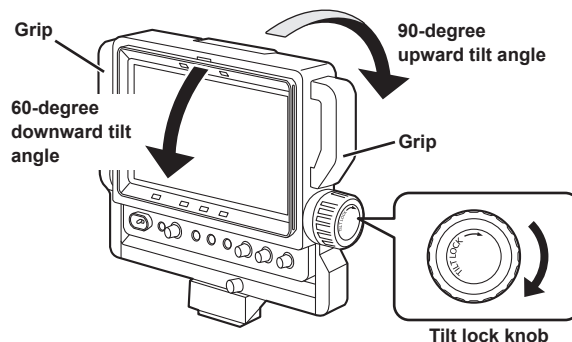
When the viewfinder is detached, attach the connector cover to the camera to prevent dust from entering the D-Sub connector.

Note

Do not use the hood to detach the viewfinder.

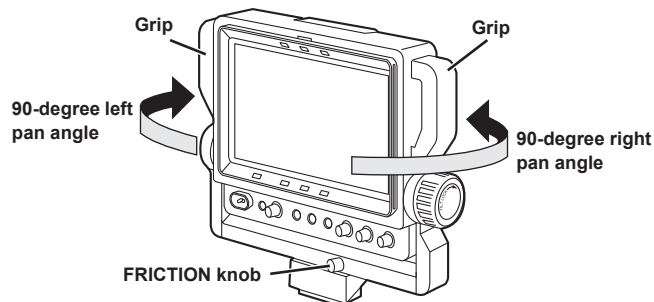
Viewfinder tilting

Turn the **tilt lock knob** in the direction of the arrow to increase torque exerted during tilting. Adjust its torque properly and tilt the viewfinder using the grips.

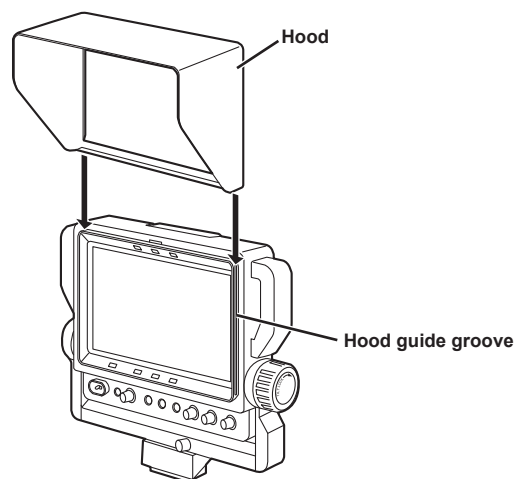


Viewfinder panning

Turn the **FRICTION** knob in the direction marked **+** to increase torque or in the direction marked **-** to decrease it. Adjust its torque properly and pan the viewfinder using the grips.



Attaching and removing the hood



- To install the hood, place the edges in the hood in the hood guide grooves and slide the hood downwards.
- To remove the hood, slide it upwards.

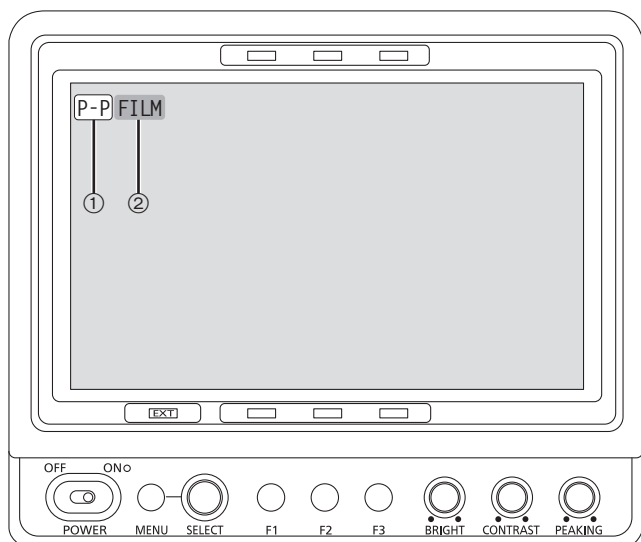
Note

Never tilt or pan the viewfinder using the hood.

On-screen display

The viewfinder screens display operation status, functions, screen adjustment status, menus and other information.

Operation status display



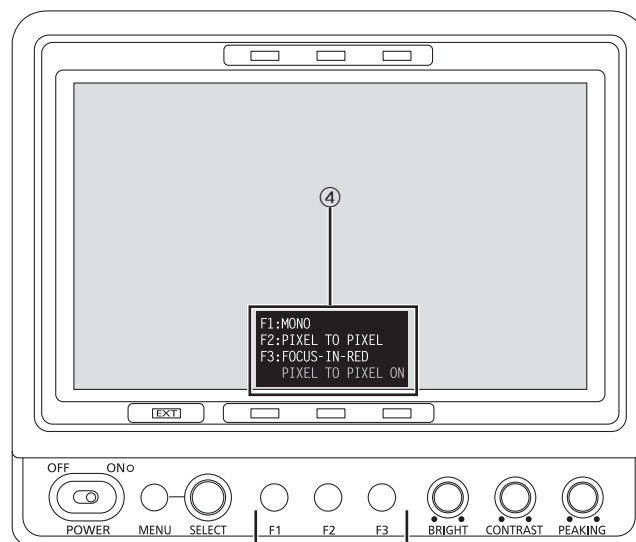
① PIXEL TO PIXEL mode

This indication appears when image display is in the PIXEL TO PIXEL mode.

② FILM mode

This indicates when the "GAMMA SELECT" item in the "VIDEO CONFIG" menu is set to "FILM".

Function display

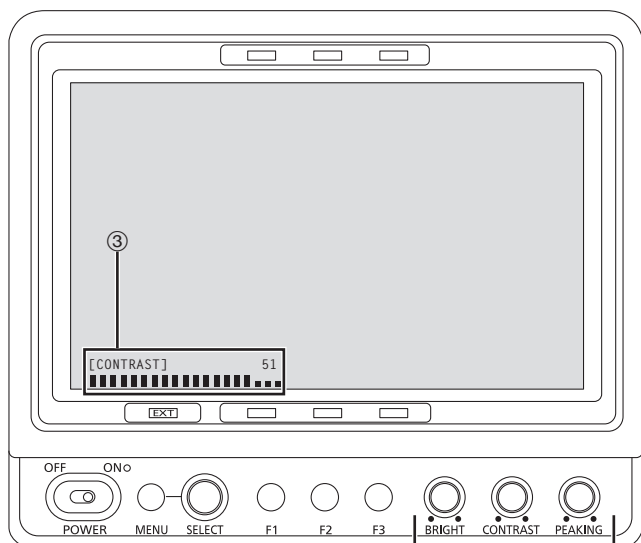


Function buttons

④ When any of function buttons [F1] to [F3] are used, the function assigned and its status are indicated.

- This display disappears after approximately 2 seconds of inaction.
- You can use the "FUNCTION DISPLAY" item in the "FUNCTION" menu to change display status. (page 11)

Picture adjusting knobs status display



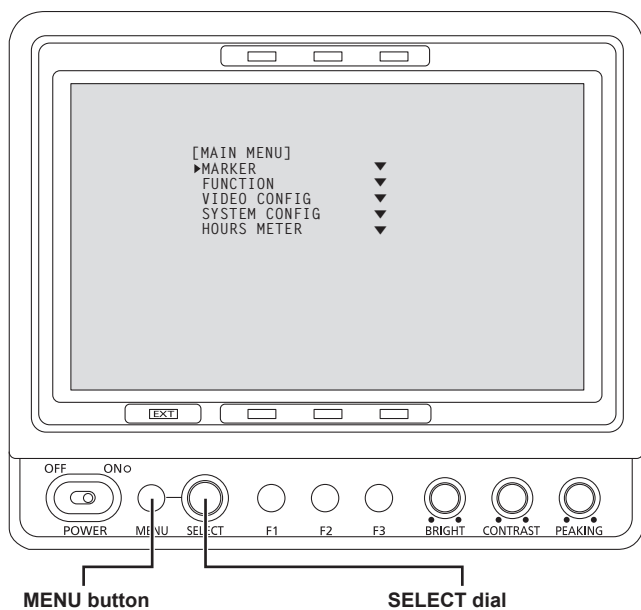
Picture adjusting knobs

③ When one of the picture adjustment knobs ([BRIGHT], [CONTRAST] or [PEAKING]) is used, the name of the knob and its adjustment level is displayed.

- This display disappears after approximately 2 seconds of inaction.

How to use on-screen menus

Menu operations



1. Press the MENU button.

The "MAIN MENU" appears.

Note

The display turns off after 2 minutes of inaction.
(The value shown before the display turns off is confirmed.)

2. Turn the SELECT dial to move ► to a MENU item, then press the SELECT dial to select it.

The selected item opens.

- Press the MENU button to return to the previous screen.
- Pressing the MENU button when the [MAIN MENU] is displayed turns off the menu display.

3. Again, turn the SELECT dial to select a menu item to be set, then press the SELECT dial.

The set value changes to green.

```
[FUNCTION]
►FUNCTION1          MONO
FUNCTION2          PIXEL TO PIXEL
FUNCTION3          FOCUS-IN-RED

FUNCTION DISPLAY    ON1
```

4. Turn the SELECT dial to select a set value.

- To cancel, press the MENU button.

5. Press the SELECT dial.

The set item is entered.

Menu configuration

MAIN MENU

- MARKER
 - MARKER
 - ZONE
 - 4:3
 - BACK
 - CENTER
 - CROSS HATCH
 - SIZE
- FUNCTION
 - FUNCTION1
 - FUNCTION2
 - FUNCTION3
 - FUNCTION DISPLAY
- VIDEO CONFIG
 - GAMMA SELECT
 - FILM GAMMA
 - COLOR TEMP.
 - SHARPNESS MODE
 - SHARPNESS H
 - SHARPNESS V
 - MONO
 - SCAN
- SYSTEM CONFIG
 - UP TALLY LAMP
 - WFM
 - WFM POSITION
- HOURS METER
 - OPERATION
 - LCD

How to use on-screen menus (continued)

● MARKER menu

__ indicates factory default settings.

Item	Set value	Remarks
MARKER	<u>OFF</u> ON	Determines whether markers will be displayed in the viewfinder. OFF : Not displayed ON : Displayed
ZONE	OFF <u>4:3</u> 13:9 14:9 CNSCO2.39 CNSCO2.35 2:1 VISTA 95% 93% 90% 88% 80% USER85%	Selects the type of marker. OFF : No marker display 4:3 : 4:3 size marker 13:9 : 13:9 size marker 14:9 : 14:9 size marker CNSCO2.39 : 2.39 : 1 size marker CNSCO2.35 : 2.35 : 1 size marker 2:1 : 2:1 size marker VISTA : 1.85:1 size marker 95% : 95% area marker 93% : 93% area marker 90% : 90% area marker 88% : 88% area marker 80% : 80% area marker USER85% : Can be set in 1% increments in the 80% to 100% range *1 (default setting is 85%)
4:3	<u>OFF</u> 95% 93% 90% 88% 80% USER85%	Use this to select the type of marker displayed in 4:3 video aspect ratio OFF : No marker display 95% : 95% area marker 93% : 93% area marker 90% : 90% area marker 88% : 88% area marker 80% : 80% area marker USER85% : Can be set in 1% increments in the 80% to 100% range *1 (default setting is 85%)
BACK	<u>NORMAL</u> HALF BLACK	Sets the background brightness outside the marker set in the ZONE item. NORMAL : Normal background HALF : 50% background brightness BLACK : 0% (black) background brightness
CENTER	<u>OFF</u> ON	Sets the center marker display. OFF : Not displayed ON : Displayed
CROSS HATCH	HIGH LOW <u>OFF</u>	Sets the cross hatch grid display and its density. HIGH : Displays a bright cross hatch grid LOW : Displays a dim cross hatch grid OFF : Not displayed
SIZE	<u>60</u> 30	Selects size of cross hatch. 60 : 60 dots and 60 lines 30 : 30 dots and 30 lines

*1 Press the SELECT dial and wait until the set value changes to light blue to change it.

● FUNCTION menu

__ indicates factory default settings.

Item	Set value	Remarks
FUNCTION1	SCAN WFM MARKER PIXEL TO PIXEL FOCUS-IN-RED CROSS HATCH <u>MONO</u> UNDEF	Selects functions assigned to the [F1] to [F3] function buttons. SCAN : Switches between underscan and normal display WFM : Shows the waveform display screen MARKER : Displays the marker PIXEL TO PIXEL : Turns the PIXEL TO PIXEL function ON or OFF*1*2 FOCUS-IN-RED : Turns ON or OFF the function that highlights in red the portion of the image that is in focus. *1 *3
FUNCTION2	SCAN WFM MARKER <u>PIXEL TO PIXEL</u> FOCUS-IN-RED CROSS HATCH MONO UNDEF	MARKER : Displays the marker PIXEL TO PIXEL : Turns the PIXEL TO PIXEL function ON or OFF*1*2 FOCUS-IN-RED : Turns ON or OFF the function that highlights in red the portion of the image that is in focus. *1 *3
FUNCTION3	SCAN WFM MARKER PIXEL TO PIXEL <u>FOCUS-IN-RED</u> CROSS HATCH MONO UNDEF	CROSS HATCH : Turns ON or OFF the cross hatch grid display MONO : Switches between color and monochrome display UNDEF : Does not assign a function
FUNCTION DISPLAY	OFF <u>ON1</u> ON2	Selects the display settings and action settings (1 touch, 2 touches, OFF) of functions assigned to function buttons [F1] to [F3]. OFF : The function is not displayed ON1 : 1 touch activates and displays operation ON2 : 2 touches activate and display operation

*1 The settings are canceled when the power is turned OFF.

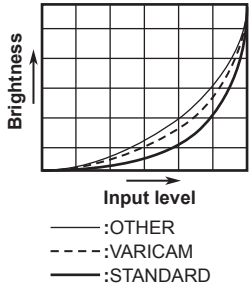
*2 Magnifies the center portion of the screen. The [P-P] mark appears at the top left of the screen when the function is on.

*3 During FOCUS-IN-RED operation, you can use the SELECT dial to change detection sensitivity.

How to use on-screen menus (continued)

● VIDEO CONFIG menu

__ indicates factory default settings.

Item	Set value	Remarks
GAMMA SELECT	<u>STANDARD</u> FILM	Selects the gamma curve. The [FILM] mark appears at the top left of the screen when FILM is selected. STANDARD : Standard mode FILM : Film mode
FILM GAMMA	<u>VARICAM</u> OTHER	Selects the type of FILM gamma mode. VARICAM : Shows that FILM_REC gamma is selected on the camera OTHER : Shows that a mode other than FILM_REC gamma is selected on the camera Gamma curve (representative)  <p>— : OTHER - - - : VARICAM — : STANDARD</p>
COLOR TEMP.	USER 0 63 D93 D65 D56	Selects color temperature. USER 0 - 63 : Adjustable settings 0 to 63 (equivalent to a color temperature range of 3,000 K to 9,300 K) *1 D93 : Equivalent to a color temperature of 9,300 K D65 : Equivalent to a color temperature of 6,500 K D56 : Equivalent to a color temperature of 5,600 K
SHARPNESS MODE	<u>HIGH</u> LOW	Selects the width of edges during contour correction (during peaking operation). HIGH : Narrow edge LOW : Wide edge
SHARPNESS H	0 30	Sets the horizontal contour correction value. Adds the value to the PEAKING knob operation.
SHARPNESS V	0 30	Sets the vertical contour correction value. Adds the value to the PEAKING knob operation.
MONO	<u>OFF</u> ON	Switches between color and monochrome (MONO). OFF : Color ON : Monochrome
SCAN	<u>NORMAL</u> UNDER	Sets screen display to underscan or normal display. NORMAL : Normal display UNDER : Underscan

*1 Press the SELECT dial and wait until the set value changes to light blue to change it.

● SYSTEM CONFIG menu

__ indicates factory default settings.

Item	Set value	Remarks
UP TALLY LAMP	HIGH <u>LOW</u> OFF	Sets the brightness of the up tally lamp. HIGH : Lights brightly LOW : Lights dimly OFF : Does not light the up tally lamp
WFM	<u>OFF</u> ON	Displays the waveform of the luminance signal input to the viewfinder. OFF : The waveform is not displayed ON : The waveform is displayed
WFM POSITION	LB <u>RB</u> RT LT	Selects location of WFM waveform display. LB : Left bottom of the screen RB : Right bottom of the screen RT : Right top of the screen LT : Left top of the screen

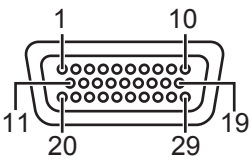
● HOURS METER menu

__ indicates factory default settings.

Item	Set value	Remarks
OPERATION	□□□□□h	Displays the total number of hours that the power has been on. □□□□□h *1
LCD	□□□□□h	Displays the number of hours that the backlight has been on. □□□□□h *1

*1 "□□□□□h" indicates the time in hours up to 262,800 hours (about 30 years). Hours exceeding 262,800 hours are indicated as "OVER".

Table showing camera interface connector pin assignment

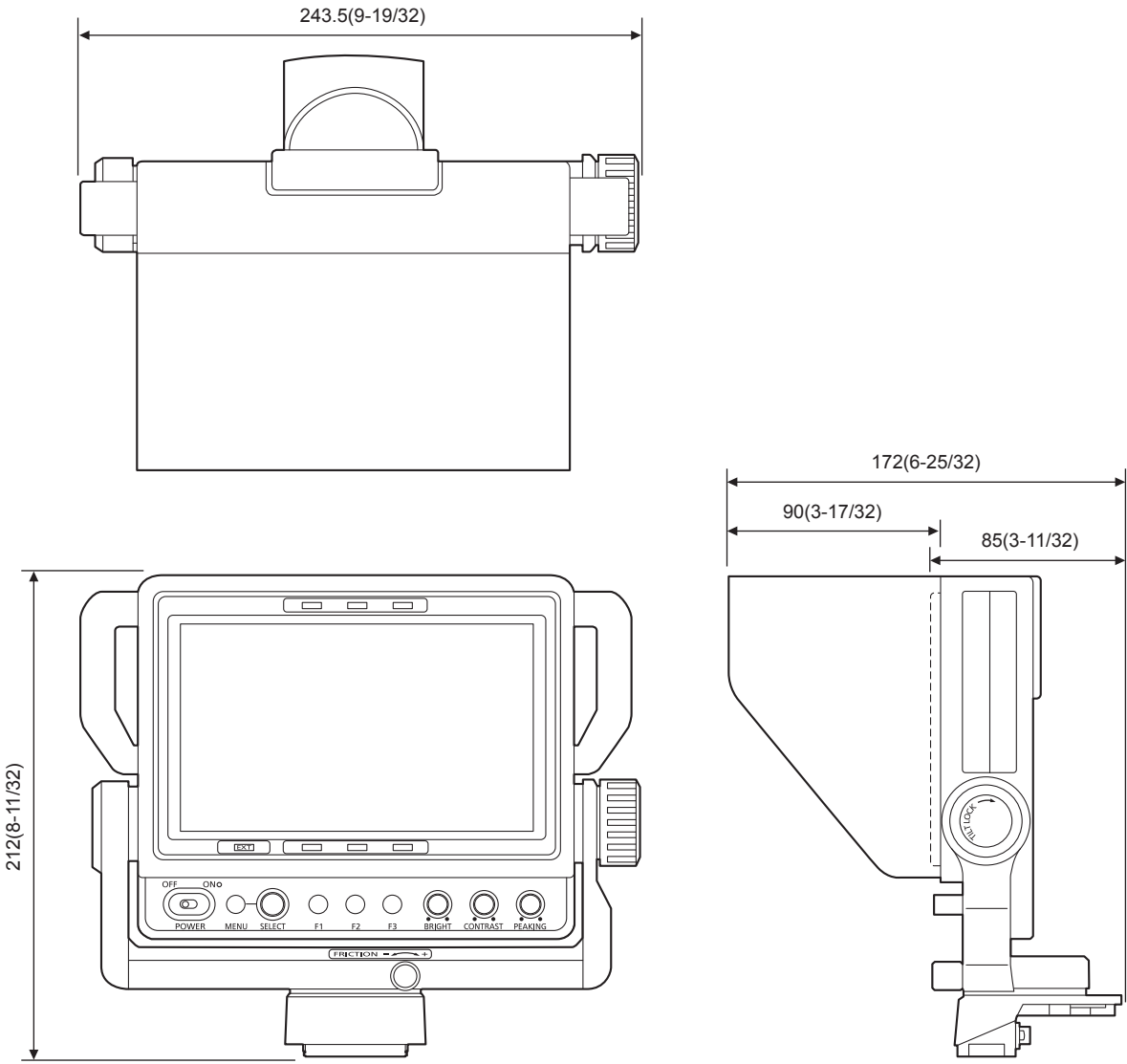


Camera I/F connector (D-Sub 29-pin)

Pin No.	Signal name	Pin No.	Signal name	Pin No.	Signal name
1	Y	11	Y-GND	20	VF P-REQ
2	Pb	12	Pb-GND	21	
3	Pr	13	Pr-GND	22	
4		14	A-GND	23	(P-CONT)
5	I2CDATA	15	D-GND	24	I2C CLK
6	R_TALLY	16		25	G_TALLY
7	UP_TALLY	17	UNREG-GND	26	(VF-ACT)
8		18		27	
9	VF12V	19	F-GND	28	
10				29	

Appearance

Unit: mm (inch)



Maintenance inspections

Maintenance inspections through periodic and appropriate maintenance are essential to keep the unit in optimum condition and ensure safe operation. Be sure to conduct maintenance inspections to enable long-term, full use of all its functions.


Necessity of periodic maintenance service

The LCD panel is equipped with a backlight. Performance of the backlight (a consumable component) deteriorates over time, and will eventually fail. Therefore, service should not be left until failure occurs, but scheduled maintenance should be conducted to maintain device performance and prevent unexpected consumable-related failures.

Specifications

[General]

Power supply:	DC 12 V (supplied by the camera)
Power consumption:	10 W

 indicates safety information.

Ambient operating temperature:

0 °C to 45 °C (32 °F to 113 °F)

Storage temperature:

−20 °C to 60 °C (−4 °F to 140 °F)

Ambient operating humidity:

10% to 85% (no condensation)

Dimensions (Width × Height × Depth):

243.5 mm × 212 mm × 172 mm
(9-19/32 inches × 8-11/32 inches × 6-25/32 inches)
(with hood attached)
243.5 mm × 212 mm × 85 mm
(9-19/32 inches × 8-11/32 inches × 3-11/32 inches)
(without hood)

Weight: Approx. 1.6 kg (3.53 lb) (without hood)

[Display panel]

Panel size:

7.0-inch (177.8 mm)

Number of pixels:

1024 × 600 (WSVGA)

Display colors:

Approx. 16,200,000 colors

[Switch functions and connectors]

Operation panel:

POWER switch × 1
MENU button × 1
SELECT dial × 1
Function buttons × 3
Picture adjusting knobs × 3
([BRIGHT], [CONTRAST], [PEAKING])

Connectors:

Camera I/F connector (D-Sub 29-pin × 1)

Memo

Handwriting practice area with 20 horizontal dashed lines.

Information on Disposal for Users of Waste Electrical & Electronic Equipment (private households)



This symbol on the products and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste.

For proper treatment, recovery and recycling, please take these products to designated collection points, where they will be accepted on a free of charge basis. Alternatively, in some countries you may be able to return your products to your local retailer upon the purchase of an equivalent new product.

Disposing of this product correctly will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling. Please contact your local authority for further details of your nearest designated collection point.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

For business users in the European Union

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

Information on Disposal in other Countries outside the European Union

This symbol is only valid in the European Union.

If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

Декларація про Відповідність Вимогам Технічного Регламенту Обмеження Використання деяких Небезпечних Речовин в електричному та електронному обладнанні (затвердженого Постановою №1057 Кабінету Міністрів України)

Виріб відповідає вимогам Технічного Регламенту Обмеження Використання деяких Небезпечних Речовин в електричному та електронному обладнанні (ТР ОБНР).

Вміст небезпечних речовин у випадках, не обумовлених в Додатку №2 ТР ОБНР, :

1. свинець(Pb) – не перевищує 0,1 % ваги речовини або в концентрації до 1000 частин на мільйон;
2. кадмій (Cd) – не перевищує 0,01 % ваги речовини або в концентрації до 100 частин на мільйон;
3. ртуть(Hg) – не перевищує 0,1 % ваги речовини або в концентрації до 1000 частин на мільйон;
4. шестивалентний хром (Cr⁶⁺) – не перевищує 0,1 % ваги речовини або в концентрації до 1000 частин на мільйон;
5. полібромбіфеноли (PBB) – не перевищує 0,1% ваги речовини або в концентрації до 1000 частин на мільйон;
6. полібромдефенілові ефіри (PBDE) – не перевищує 0,1 % ваги речовини або в концентрації до 1000 частин на мільйон.

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